IN THE CLAIMS

Claim 1 (currently amended) A method of improving frequency spectrum deployment and reducing inter cell interference in a cellular wireless communications system having multiple adjacent cells which provide service to a geographic area, each cell having a base station with a sectored antenna for bi-directional communication with customer premise equipment located in sectors of said cells, each cell being divided into an even number of at least four sectors, the base stations in adjacent cells being arranged in a grid configuration, the method comprising:
selecting at least one frequency set for upstream and downstream communication between said base stations and said customer premise equipment;
employing a polarization diversity scheme between communications in adjacent sectors; and
rotating the sectors in each cell such that dividing lines between sectors are off-set relative to the grid configuration by a configurable angle, whereby the combination of the polarization diversity scheme and rotating the sectors reduce the number of interference zones between adjacent sectors.

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Claim 2 (cancelled)

Claim 3 (currently amended) The method as defined in claim 1 ~~2~~ wherein said configurable angle is in the range +/-17.5° to +/-27.5°.

Claim 4 (currently amended) The method as defined in claim 1 ~~3~~ wherein said configurable angle is +/- 2.5°.

Claim 5 (original) The method as defined in claim 1 wherein there are four cells arranged in a two by two grid configuration and the configurable angle is +/-22.5°.

Claim 6 (original) The method as defined in claim 1 wherein there are nine cells arranged in a three by three grid configuration.

Claim 7 (cancelled)

Claim 8 (currently amended) The method as defined in claim 6 ~~7~~ wherein a separate frequency set is used to provide service to said one or more interference zones ~~slivers~~.

Claim 9 (currently amended) The method as defined in claim 6 ~~7~~ wherein no service is provided to said one or more interference zones ~~slivers~~.

Claim 10 (original) The method of claim 1 wherein there are sixteen cells arranged in a four by four grid configuration.

Claim 11 (original) The method of claim 10 wherein multiple clusters of four by four grid configurations are employed.

Claim 12 (currently amended) A system for improving frequency spectrum deployment and reducing inter cell interference in a cellular wireless communications system having multiple adjacent cells to provide communications service to a geographic area, the system comprising:

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a base station in each cell having a sectored antenna for providing bi-directional communication with customer premise equipment (CPE) located in sectors of said cells, each cell being divided into an even number of at least four sectors, the base stations in adjacent cells being arranged in a grid configuration;

a directional antenna at each CPE for receiving downstream communication from said base station and transmitting upstream communication to said base station means to select at least one frequency set for upstream and downstream communication between said base stations and said customer premise equipment;

means to employ a polarization diversity scheme between communications in adjacent sectors; and

means at said base station to configure the sectors in each cell such that nominal dividing lines between sectors are off-set relative to the grid configuration by a configurable angle whereby the combination of the polarization diversity scheme and the cell configuration reduced the number of interference zones between adjacent sectors.

Claim 13 (original) The system as defined in claim 12 wherein said off-set is +/-22.5°.

Claim 14 (original) The system as defined in claim 12 wherein each sectored antenna subdivides each cell into four substantially equal sectors.

Claim 15 (original) The system as defined in claim 12 comprising four cells in a two by two grid configuration.

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Claim 16 (new) The method as defined in claim 6 wherein the polarization diversity scheme is such that the polarization in one direction of the three by three grid configuration alternates between vertical polarization and horizontal polarization.